SDWA infrastructure costs pegged at $138 billion

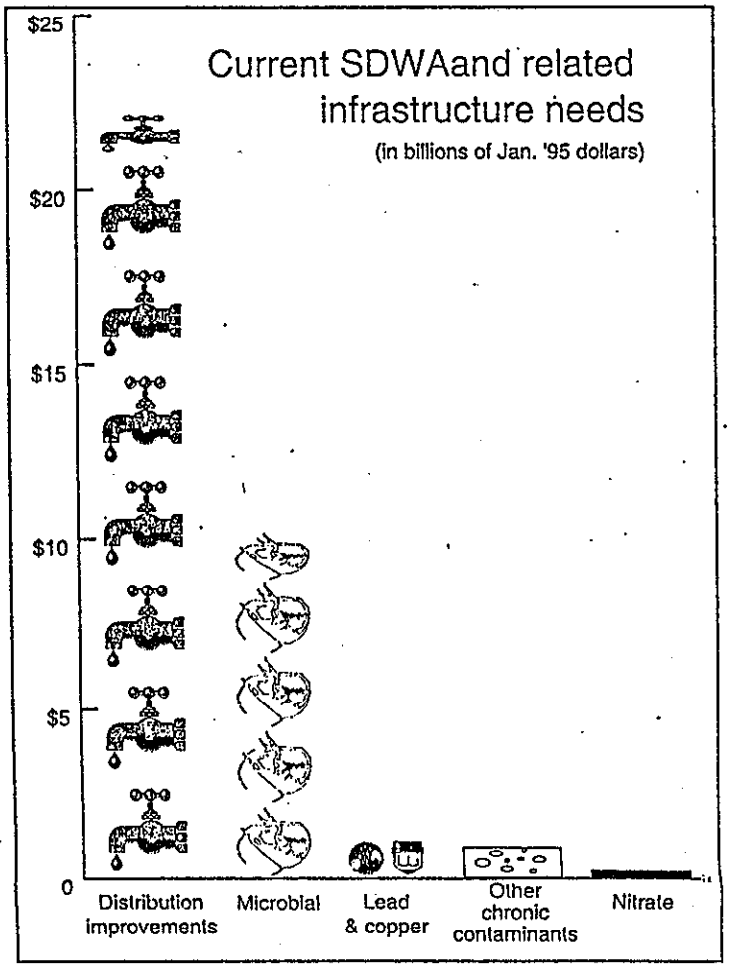
by Mary A. Parmelee

US drinking water systems will need to spend $138.4 billion on infrastructure needs in the next 20 years to meet the requirements of the Safe Drinking Water Act and related costs, according to the US Environmental Protection Agency. The costs are reported in 1995 dollars.

Released January 31 by USEPA, the first Drinking Water Infrastructure Needs Survey will be used as the baseline data for determining allotments for state revolving loan funds. USEPA has yet to determine the priorities for allocating the funding, but criteria could include total financial need, size of population affected, and special needs of American Indian and Alaska Native systems.

Nearly $77 billion is needed now to fund improvements to protect public health, the agency said, and another $62 million is needed through the year 2014. These figures represent only the costs to meet current regulations and the regulations to be proposed for disinfectants and disinfection by-products and enhanced surface-water treatment. Not included are the costs for meeting future rules on groundwater disinfection, radon, radionuclides, arsenic, and sulfate and normal replacement of aging distribution facilities.

Of the $76.8 billion dollars needed now, $10.2 billion is needed to reduce the risk of microbiological contamination, $0.9 for lead and copper, $0.2 billion for nitrates, and 0.8 billion for other chronic contaminants. An additional $22.3 billion is needed now to replace distribution piping that poses a threat of coliform contamination.



Broken down by types of costs over the 20 years, 56 percent ($77.2 billion) will be needed for transmission and distribution system installation and replacement; 26 percent, or $36.2 billion, will be required for treatment costs. Storage costs run $12.1 billion, or 9 percent of the 20-year total, and costs for source rehabilitation and new development of sources run $11.0 billion, or 8 percent. Other costs total nearly $2 billion.

Although the largest share of the costs would be incurred by large systems, the average per-household cost over 20 years is the lowest at $970; for the customers of medium-sized systems the cost is somewhat higher at $1,200. For small systems and American Indian systems, the per-household cost climbs to $3,300 and $6,200 respectively. The per-household costs for the infrastructure needs of Alaska Native systems skyrockets to $43,500.

The per-household costs for small systems are high because the utilities lack economies of scale and are least able to have access to outside capital to finance improvements. American Indian and Alaska Native systems, which are primarily small systems, also face problems of scarce resources, remote locations, and arctic conditions, factors that significantly raise their infrastructure costs.

In a state-by-state look at costs, California, New York, and Texas top the lists of immediate and 20-year needs. California needs $1.816 billion now and a total of $18.814 billion for the next 20 years; the Empire State needs $1.245 billion now and $10.083 billion over the long term. The immediate needs for Texas total $1.038 billion and $12.365 billion for 20 years. Rounding out the top ten by immediate needs are Ohio, Massachusetts, Arkansas, Michigan, Pennsylvania, Virginia, and Illinois. On the top ten list for the 20-year needs, Florida and Washington replace Arkansas and Virginia.

A remarkable 94 percent of the 794 large systems and 2,760 medium systems contacted responded to the survey. Researchers also visited 537 small systems and 92 American Indian and Alaska Native systems to survey their needs. Because of the significance of the survey for future funding, AWWA helped alert utilities to the importance of filling out the questionnaires.

The executive summary of the report is available on the USEPA's Office of Ground Water and Drinking Water home page, http://www.epa.gov.OW/OGWDW, and more information is available from the Safe Drinking Water Hot Line, (800) 426-4791.